



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,815	08/26/2003	William F. Howard	WEAT/0313	4562
36735	7590	04/21/2006		
PATTERSON & SHERIDAN, L.L.P. 3040 POST OAK BOULEVARD, SUITE 1500 HOUSTON, TX 77056			EXAMINER SMITH, MATTHEW J	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/648,815	HOWARD ET AL.	
	Examiner	Art Unit	
	Matthew J. Smith	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10,12-17,26,27 and 30-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-10,12-14,17,26,30-46,48 and 49 is/are rejected.
- 7) ☒ Claim(s) 15,16,27 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "first" and "second" wellbores (claim 48) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claims 48 and 49 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Figure 3 illustrates a main bore and a branch bore with the steam injected into the branch. Claims 48 and 49 are directed to a method using an injection well and a separate, distinct production well, which Figure 3 can not justify.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 6, 10, 12, 13, 31-33, 35, 37, and 39-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Kisman (6039121).

Kisman discloses wellbore having a height, interface, and second, lower density fluid spaced from the bottom; cooling zone having a saturated liquid and flashing or vaporization at a low pressure region (col. 11, lines 31-39); pump 50 above the cooling zone; the cooling zone between the pump and the bottom and having a pressure gradient; the vapor cools the well fluid; horizontal, footed wellbore; space between the pump and the wellbore upper surface (Fig. 2); and vaporizing gas rising naturally (Fig. 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9, 14, 17, 26, 30, 34, 36, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kisman in view of Stuebinger et al. (6079491).

Kisman discloses wellbore having a height, interface, and second, lower density fluid spaced from the bottom; cooling zone having a saturated liquid and flashing or vaporization at a low pressure region (col. 11, lines 31-39); pump 50 above the cooling zone; the cooling zone between the pump and the bottom and having a pressure gradient; the vapor cools the well fluid; horizontal, footed wellbore; space between the pump and the wellbore upper surface (Fig. 2); and vaporizing gas rising naturally (Fig. 1) but not a progressing cavity pump having a rubber stator, rod-driven rotor, pressure sensor, controller, or low resistance to temperature-based breakdown.

Stuebinger et al. present an electrical, submersible, progressing cavity pump 22 having a rubber stator (col. 11, line 21) that has a low resistance to temperature-based breakdown (being rubber as opposed to metal), rod-driven rotor 26 (Fig. 4), pressure sensor and controller (col. 9, line 42), and method of use.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the Stuebinger et al. pump, sensor, and controller in the Kisman device in order to handle larger volumes of fluids (Stuebinger et al., col. 5, lines 37-38). To

locate the controller at the surface would also have been obvious since the function of the controller would not change regardless of where the controller is located.

Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Butler (5607016) in view of Kisman.

Butler discloses injecting steam in a first wellbore 26; urging formation fluid toward a second wellbore 32; positioning a pump 42 to pump fluids (Fig. 3A) but not maintaining a pressure in the formation such that the steam enters the second wellbore as water, providing a cooling zone with a pressure sufficient to vaporize water, or operating a pump maintain pressure sufficient to vaporize water.

Kisman teaches producing a well by maintaining a pressure in the formation such that the steam enters the second wellbore as water, providing a cooling zone with a pressure sufficient to vaporize water, and operating a pump to maintain pressure sufficient to vaporize water (col. 11, lines 31-39).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to produce a second wellbore with the technique taught by Kisman in order to provide an enhanced lift method (col. 2, line 30).

Allowable Subject Matter

Claims 15, 16, 27, and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments, see page 8, filed 23 January 2006, with respect to the rejections of claims 1-3, 10, 17, and 18 under 35 U.S.C. 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new rejection is made in view of Kisman. This reference refers to the flash point, which the examiner equates to vaporization.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Smith whose telephone number is 571-272-7034. The examiner can normally be reached on T-F, 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Bagnell
Supervisory Patent Examiner
Art Unit 3672

MJS *MJS*
13 April 2006